

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-40 (canceled).

Claim 41 (currently amended): An anode mixture layer comprising an anode material having a reaction phase containing:

~~an element capable of generating an intermetallic compound with lithium selected from the group consisting of silicon and tin;~~

carbon;

~~tin; and~~

at least one constituent selected from the group consisting of nickel, copper, iron, cobalt, manganese, zinc, indium, and silver,

wherein a ratio of carbon in the reaction phase ranges from about 10% by weight to about 40% by weight, and

wherein a peak of carbon is obtained in a region lower than about 284.5 eV by X-ray photoelectron spectroscopy, and the carbon in the reaction phase exists among the tin and is bonded to form a carbide with a metal element or metalloid element contained in the reaction phase such that the electric charge density of the carbon in the reaction phase is increased by interaction with the metal element or metalloid element.

Claims 42-43 (canceled).

Claim 44 (previously presented): An anode mixture layer according to claim 41, wherein the reaction phase contains tin; at least one selected from the group consisting of zinc, indium, and silver; and at least one selected from the group consisting of nickel, copper, iron, cobalt, and manganese.

Claim 45 (previously presented): An anode mixture layer according to claim 41, wherein the reaction phase further contains at least one selected from the group consisting of elements from Group 4 to Group 6 in a long period periodic table.

Claim 46 (canceled).

Claim 47 (previously presented): An anode mixture layer according to claim 41, wherein a specific surface area of the anode material ranges from about 0.05 m²/g to about 70 m²/g.

Claim 48 (previously presented): An anode mixture layer according to claim 41, wherein a median size of the anode material is about 50 µm or less.

Claim 49 (previously presented): An anode mixture layer according to claim 41, wherein an average crystal particle diameter of the reaction phase is about 10µm or less.

Claim 50 (withdrawn): An anode material having a reaction phase containing:
tin; and
carbon, wherein

an energy difference between a peak of 3d_{5/2} orbit of tin atom and a peak of 1s orbit of carbon atom obtained by X-ray photoelectron spectroscopy is larger than about 200.1 eV.

Claim 51 (withdrawn): An anode material according to claim 50, wherein a half value width of a diffraction peak obtained by X-ray diffraction of the reaction phase is about 0.5° or more.

Claim 52 (withdrawn): An anode material according to claim 50, wherein the reaction phase further contains at least one selected from the group consisting of nickel, copper, iron, cobalt, manganese, zinc, indium and silver.

Claim 53 (withdrawn): An anode material according to claim 52, wherein the reaction phase contains at least one selected from the group consisting of zinc, indium, and silver; and at least one selected from the group consisting of nickel, copper, iron, cobalt, and manganese.

Claim 54 (withdrawn): An anode material according to claim 50, wherein the reaction phase further contains at least one selected from the group consisting of elements from Group 4 to Group 6 in a long period periodic table.

Claim 55 (withdrawn): An anode material according to claim 50, wherein a ratio of carbon ranges from about 2% by weight to about 50% by weight.

Claim 56 (withdrawn): An anode material according to claim 50, wherein a specific surface area ranges from about $0.05\text{ m}^2/\text{g}$ to about $70\text{ m}^2/\text{g}$.

Claim 57 (withdrawn): An anode material according to claim 50, wherein a median size is about $50\text{ }\mu\text{m}$ or less.

Claim 58 (withdrawn): An anode material according to claim 50, wherein an average crystal particle diameter of the reaction phase is about $10\mu\text{m}$ or less.

Claim 59 (withdrawn): A method of manufacturing an anode material having a reaction phase containing an element capable of generating an intermetallic compound with lithium and carbon, the method comprising synthesizing the anode material by mechanical alloying using a raw material containing an element capable of generating an intermetallic compound with lithium and a raw material for carbon.

Claim 60 (withdrawn): A method of manufacturing an anode material according to claim 59, wherein as a raw material containing an element capable of generating an intermetallic compound with lithium, an alloy containing at least two or more elements other than carbon is used.

Claim 61 (withdrawn): A method of manufacturing an anode material according to claim 59, wherein as a raw material for carbon, at least one selected from the group consisting of non-graphitizable carbon, graphitizable carbon, graphite, pyrolytic carbons, coke, glassy carbons, organic high molecular weight compound fired body, activated carbon, and carbon black is used.

Claim 62 (withdrawn): A method of manufacturing an anode material according to claim 59, wherein as a raw material for carbon, at least one selected from the group consisting of fiber type, spherical type, granular type, and scale type carbonaceous materials is used.

Claim 63 (currently amended): A battery comprising:

a cathode;

an anode; and

an electrolyte, wherein

the anode contains an anode material having a reaction phase containing

an element capable of generating an intermetallic compound with lithium selected from the group consisting of silicon and tin,

carbon, ~~tin~~, and

at least one constituent selected from the group consisting of nickel, copper, iron, cobalt, manganese, zinc, indium, and silver,

wherein a ratio of carbon in the reaction phase ranges from about 10% by weight to about 40% by weight, and

wherein a peak of carbon is obtained in a region lower than about 284.5 eV by X-ray photoelectron spectroscopy, and the carbon in the reaction phase exists among the tin and is bonded to form a carbide with a metal element or metalloid element contained in the reaction phase such that the electric charge density of the carbon in the reaction phase is increased by interaction with the metal element or metalloid element.

Claims 64 -65 (canceled).

Claim 66 (previously presented): A battery according to claim 63, wherein the reaction phase contains tin; at least one selected from the group consisting of zinc, indium, and silver; and at least one selected from the group consisting of nickel, copper, iron, cobalt, and manganese.

Claim 67 (previously presented): A battery according to claim 63, wherein the reaction phase further contains at least one selected from the group consisting of elements from Group 4 to Group 6 in a long period periodic table.

Claim 68 (canceled).

Claim 69 (previously presented): A battery according to claim 63, wherein a specific surface area of the anode material ranges from about $0.05\text{ m}^2/\text{g}$ to about $70\text{ m}^2/\text{g}$.

Claim 70 (previously presented): A battery according to claim 63, wherein a median size of the anode material is about $50\text{ }\mu\text{m}$ or less.

Claim 71 (previously presented): A battery according to claim 63, wherein an average crystal particle diameter of the reaction phase is about $10\text{ }\mu\text{m}$ or less.

Claim 72 (withdrawn): A battery comprising:
a cathode;
an anode; and
an electrolyte, wherein
the anode contains an anode material having a reaction phase containing tin and carbon, and wherein

in the anode material, an energy difference between a peak of $3d_{5/2}$ orbit of tin atom and a peak of $1s$ orbit of carbon atom, which are obtained by X-ray photoelectron spectroscopy is larger than about 200.1 eV.

Claim 73 (withdrawn): A battery according to claim 72, wherein a half value width of a diffraction peak obtained by X-ray diffraction of the reaction phase is about 0.5° or more.

Claim 74 (withdrawn): A battery according to claim 72, wherein the reaction phase further contains at least one selected from the group consisting of nickel, copper, iron, cobalt, manganese, zinc, indium and silver.

Claim 75 (withdrawn): A battery according to claim 74, wherein the reaction phase contains at least one selected from the group consisting of zinc, indium, and silver; and at least one selected from the group consisting of nickel, copper, iron, cobalt, and manganese.

Claim 76 (withdrawn): A battery according to claim 72, wherein the reaction phase further contains at least one selected from the group consisting of elements from Group 4 to Group 6 in a long period periodic table.

Claim 77 (withdrawn): A battery according to claim 72, wherein in the anode material, a ratio of carbon ranges from about 2% by weight to about 50% by weight.

Claim 78 (withdrawn): A battery according to claim 72, wherein a specific surface area of the anode material ranges from about $0.05\text{ m}^2/\text{g}$ to about $70\text{ m}^2/\text{g}$.

Claim 79 (withdrawn): A battery according to claim 72, wherein a median size of the anode material is about $50\text{ }\mu\text{m}$ or less.

Claim 80 (withdrawn): A battery according to claim 72, wherein an average crystal particle diameter of the reaction phase is about $10\text{ }\mu\text{m}$ or less.

Claim 81 (previously presented): An anode mixture layer according to claim 41, further comprising a carbonaceous material capable of inserting and extracting lithium.

Claim 82 (previously presented): An anode mixture layer according to claim 41, further comprising a carbonaceous material capable of inserting and extracting lithium in a range of from about 1% by weight to about 95% by weight with respect to the anode material.

Claim 83 (previously presented): An anode mixture layer according to claim 41, further comprising a carbonaceous material capable of inserting and extracting lithium in about equal ratio with the anode material.

Claim 84 (previously presented): A battery according to claim 63, wherein the anode further contains a carbonaceous material capable of inserting and extracting lithium.

Claim 85 (previously presented): A battery according to claim 63, wherein the anode further contains a carbonaceous material capable of inserting and extracting lithium in a range of from about 1% by weight to about 95% by weight with respect to the anode material.

Claim 86 (previously presented): A battery according to claim 63, wherein the anode further contains a carbonaceous material capable of inserting and extracting lithium in about equal ratio with the anode material.

Claim 87 (previously presented): An anode mixture layer according to claim 41, wherein the peak of carbon is obtained in a region greater than 282.5 eV and lower than about 284.5 eV by X-ray photoelectron spectroscopy.

Claim 88 (previously presented): A battery according to claim 63, wherein the peak of carbon is obtained in a region greater than 282.5 eV and lower than about 284.5 eV by X-ray photoelectron spectroscopy.